

REMARKS

The Office Action indicated that Claims 2-4, 12-14 and 61-72 were allowed.

The Office Action noted a minor objection to Claim 60 and indicated that Claim 60 would be allowable if amended to address the 35 USC § 112 issues.

The Office Action further indicated that the prior art of record did not disclose a bonding agent layer forming step with a paste like bonding agent having an embedded position regulating member that can move along the length of the barrier ribs to provide a bonding agent to the tops of the barrier ribs while regulating a distance between the upper surface of the bonding agent and the barrier ribs. This configuration permits a relatively even application of a bonding agent to the tops of the barrier ribs thereby permitting an adhesion of the barrier ribs to its corresponding and facing substrate to prevent cross talk between the appropriate cells.

Referring to our present specification, starting on Page 41, line 23, the ability to provide a relatively flexible mesh 51 that can be immersed in the bonding agent or paste layer 50 permits a regulated application of the bonding layer to the barrier ribs 18 without leaving a pattern representative of the mesh by having a relative movement of the back substrate which supports the barrier ribs along the length of the barrier ribs while pressing it down onto the mesh 51. Thus, by having a relative movement of the back substrate in this manner, the bonding agent can adhere to the parts of the barrier ribs which were previously in contact with the mesh 51 and it is possible to provide a relatively even coating of the bonding agent. As can be readily appreciated, other examples of relative movement are disclosed in the embodiments of the present invention.

In view of the allowability of the subject matter defined in Claim 3 on page 6 of the Office Action, it is believed that the current amendment of Claim 1, which sets forth a method of altering a relative position of the bonding agent on the barrier ribs horizontally along the length

of the barrier ribs while incorporating a regulating feature so that the distance between the upper surface of the bonding agent layer and the barrier ribs remains in a desirable relationship is patentable.

These features of the present invention permit any variation in the height of the barrier ribs to be adequately adhered to a corresponding substrate in an economical and efficient manner.

The Office Action cited the Sasaki et al. European patent application EPO 9455886 which also corresponds to (U.S. Patent No. 6,353,287) for applying a bonding agent to a plurality of barrier ribs and regulating a distance between the upper surface of the bonding agent layer and the barrier ribs. Actually the display panel manufacturing method disclosed in Figure 2 and its corresponding description simply provides an application of an upper frit glass 31 and a lower frit glass 52 to sandwich a barrier or divisional wall 50. There is no specific regulation of a distance between the upper surface of the bonding agent layer and the barrier ribs as acknowledged on page 3 of the Office Action.

The Office Action however relied upon the Lai (U.S. Patent No. 6,068,532) to teach a feature of simultaneous and vertically bringing a top of each barrier rib into contact with a bonding agent layer while thereby regulating a distance between the upper surface of the bonding agent layer and the barrier ribs purportedly as taught in Figures 2B through 2C. 2B and 2C teach a clamping plate fixture 30 as disclosed in column 6 which captures spacers to be used in a field emission display. The only regulating feature seems to be set forth in column 6, line 57 wherein it is stated that the pressure used for pressing the holding fixture into a substrate 36 coated with the adhesive should be to insure the bottom ends of the spacers enter into the adhesive layer without any breaking or dislocation of the spacers. The holding fixture is not moved in a

horizontal manner relative to the adhesive layer, but rather is moved downward and upward in a vertical movement. Any relative horizontal movement would appear to accumulate excess adhesive material on the upstream surface of the spacers which would create a problem in providing a subsequent alignment with the matching substrate.

Reviewing further the teaching in the Lai et al. reference, Figures 2D through 2F disclose that the adhesive coated layers must be carefully aligned and spaced from the electron emission areas 52 so that they do not touch or contaminate these active regions. See column 7, line 33. Thus the only teaching of an alignment concern, apparently, is relative to spacing the coated ends of the spacers from the active regions so that they are centered in spacings 56 between the active regions 52.

Presumably any horizontal relative movement would cause concern in the structure of Lai et al.'s FED by increasing the chance of contamination.

Thus, neither of the cited references of the Sasaki or the Lai et al. references disclose or teach the feature of "relative positions of the bonding agent and barrier ribs are altered horizontally along a length of the barrier ribs with the barrier rib tops in contact with the bonding agent" as defined in claim 1. Neither the Sasaki nor the Lai et al. reference even recognizes the problem or issue of leaving a masking pattern from the regulatory procedure in the resulting bonding agent surface. Since these references don't address the same issues or problems, they would not suggest to a person of ordinary skill in this art the advantages of our present invention.

As known the Patent Office bears an initial burden of establishing a prima facie case of obviousness under MPEP § 706.02.

As noted in the case of *In re Rijckaert*, 28 USPQ2d 1955 (CAFC 1993):

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness. *In re Oetiker*, 977 F.2d 1143, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant. *Id.* "A *prima facie* case of obviousness is established when the teachings from the prior art itself would appear to have suggested that claimed subject matter to a person of ordinary skill in the art." *In re Bell*, 991 F.2d 781, 782, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993) quoting *In re Reinhart*, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976)). If the examiner fails to establish a *prima facie* case, the rejection is improper and will be overturned.

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Rijckaert argues that the examiner has not established a *prima facie* case of obviousness and that the examiner's assumptions do not constitute the disclosure of prior art. We agree.

The Office Action further rejected Claim 15 over the Sasaki, Lai et al. in the Murai et al. (U.S. Patent No. 5,754,003). Since this is a dependent claim, and there are distinguishing features over the independent claim, it would appear that dependent claim 15 should be allowable.

However, we have reviewed Murai et al. and it is apparent that its teaching of height adjusting layers is basically a teaching of depositing a sufficient amount of glass frit so that upon a vertical movement of a substrate onto the top of the barrier ribs the glass frit can be spread to accommodate any waviness or variances in vertical height of the barrier rib. Needless to say, this reference would not be applicable to a relative horizontal movement, nor does it teach or suggest regulating the distance in the manner set forth in our display panel manufacturing method.

Finally, dependent Claim 43 was also held to be obvious over a combination of the Sasaki and Lai et al. references when taken further in view of the Browning (U.S. Patent No. 6,030,267). Again, it is believed that the above comments more than adequately distinguish the independent Claim 1 and accordingly the dependent Claim 43 should be allowable.

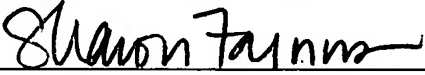
The Browning reference was reviewed to determine if it addressed any issue that could cure the deficiencies of Sasaki and Lai et al. over the amended Claim 1.

Browning, however, simply discloses an application of sol gel material to be applied on either the top of a barrier member or adjacent a barrier member to apparently adhere to and maintain the plates in alignment during a vertical sandwiching of the substrate plates together. The sol gel purportedly had a capacity to hold an alignment during the subsequent softening of the sealing frit. This manufacturing process apparently has a sol gel material such as xerogel applied on the top of the ceiling glass frit or separate thereto, and after vertical alignment it is allowed to cure for one hour at atmospheric pressure. The sol gel sets up in a glass like quality with a high density thereby establishing the alignment of the plates. Since the sol gel holds the plates together during the subsequent curing and heating, it is not seen how this would provide any control or regulating of a distance between an upper surface of a bonding agent layer and a barrier rib, and certainly does not teach relative positions of the bonding agent and the barrier ribs being altered horizontally along the length of the barrier ribs with the barrier rib tops in contact with the bonding agent.

In view of the above comments it is believed that the case is now in a condition for allowance and early notification of the same is requested.

If the Examiner believes that a telephone interview will help further the prosecution of this case, he is respectfully requested to contact the undersigned attorney at the listed telephone number.


I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on August 15, 2005.

By: Sharon Farnus

Signature

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Very truly yours,

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